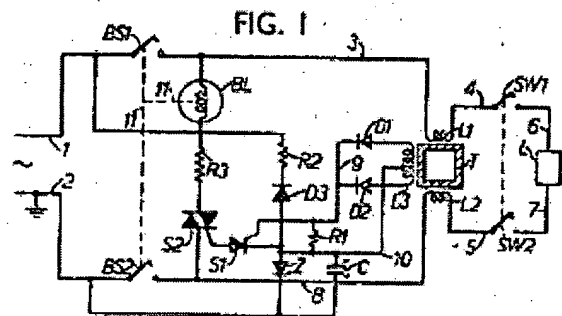


# EARTH LEAKAGE PROTECTITON CIRCUIT

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## Abstract of GB1424228

1424228 Protective arrangements TEXAS INSTRUMENTS Ltd 11 April 1973 17331/73 H2K An earth-leakage protective arrangement for an A.C. mains supply comprises a circuit-breaker BS1, BS2 having a winding BL in series with a semi-conductor trigger device, e.g. a triac S2, across the mains supply, which trigger device may be rendered conductive in response to both positive and negative half cycles of the voltage induced in the secondary winding L3 of a core-balance transformer T when the voltage in this secondary winding exceeds a threshold value. As shown, the ends of the centre tapped secondary winding L3 are connected through diodes D1, D2 to the gate of a thyristor S1. This thyristor S1 connects the gate of the triac S2 to the junction between a diode D3 and a Zener diode Z when rendered conductive on the occurrence of an earth leakage. A capacitor C ensures that a triggering voltage is always available for the triac S2. In a modified arrangement, the diodes D1, D2 are replaced by Zener diodes and capacitors connected across the two halves of the secondary winding and two thyristors are used, Fig. 2 (not shown).



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